

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Paul M. BUTTERFIELD et al.

Group Art Unit: 2625

Application No.: 10/758,099

Examiner: R. ZHU

Filed: January 16, 2004

Docket No.: 117435

For: SYSTEMS AND METHODS FOR SPECTROPHOTOMETRIC ASSESSMENT OF
COLOR MISREGISTRATION IN AN IMAGE FORMING SYSTEM

REPLY BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The following remarks are directed to the argument raised in the Examiner's Answer dated February 8, 2010.

Claims 1-9 and 14-20 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,345,117 to Klassen in view of U.S. Patent No. 6,198,549 to Decker et al. (hereinafter "Decker") and further in view of U.S. Patent No. 5,748,221 to Castelli et al. (hereinafter "Castelli"). Claims 10-13 are rejected under 35 U.S.C. §103(a) as being unpatentable over Klassen in view of Decker, Castelli and further in view of what the Office Action asserts is well-known.

**I. No Predictability Has Been Shown to Making
the Asserted Combination of References**

The Examiner's Answer asserts that because printing registration patches is a notoriously well known method in the art of printer calibration, any modification of Klassen to incorporate a registration patch would have yielded predictable results. This assertion is unreasonable.

Combining the applied references in the manner the Office Action asserts would impermissibly modify the principle of operation of, and overly complicate, the Klassen device. There is nothing in Klassen to suggest that Klassen lacks any element that would be necessary to make the color printing system of Klassen "more accurate" such as incorporating the features of Decker and Castelli in the manner the Office Action suggests. There is no reason for one of ordinary skill to modify Klassen to incorporate these features, and the mere assertion that these features were known is simply not enough to conclude that one of ordinary skill would have predictably modified Klassen to incorporate the features taught in Decker and Castelli.

Further, the incorporation of the features taught in Decker and Castelli into the Klassen device would overly complicate the Klassen device by including the additional functions, such as forming the registration patch, as opposed to merely scanning the image itself for color misregistration. The color misregistration and correction taught in Klassen operates without a registration patch. Therefore, the inclusion of such a registration patch would make the processes taught in Klassen more complicated than necessary. Therefore, any over-complication of Klassen would impermissibly modify the principle of operation of the Klassen device. Accordingly, one of ordinary skill in the art would not have predictably modified Klassen in the manner the Office Action suggests to render obvious the subject matter of independent claims 1, 8 and 20.

**II. The Office Action Provides No Objective Evidence to
Support Making the Asserted Combination of References**

The Examiner's Answer asserts that, because Decker suggests that, while a printer is printing out a repetitive test pattern, there will be some variation in registration as the paper moves through the printer station, one of ordinary skill would have predictably modified Klassen in light of Decker's suggestion. The Examiner's Answer suggests that one of ordinary skill would have done so regardless of whether Klassen recognizes a deficiency in its device. The Examiner's Answer further asserts that one of ordinary skill would have recognized the deficiency in Klassen through the teachings of Decker and been motivated to solve the alleged problem using the teachings of Castelli and Decker to print calibration images in the form of test patterns on test patches as taught by Castelli to obtain a degree of color misregistration on known dimensions that accurately reflect overall color misregistration.

It is unreasonable for the Office Action to assert that because Decker teaches printing a repetitive test pattern and Castelli teaches printing a test pattern on a test patch, that one would have predictably combined all of these references in the manner the Office Action suggests. The mere existence of the particular features is not enough to assert that one of ordinary skill would have predictably modified Klassen in the manner the Office Action suggests.

**III. The Asserted Basis for Combining the Applied References
Utilizes the Impermissible Application of Hindsight Reasoning**

The Examiner's Answer asserts that, because Klassen and Decker contain a degree of color misregistration, and because comparing a detected color value and combined color value on the basis of a known dimension of a test pattern is well known in the art, any combination of Castelli and Decker with Klassen would have been obvious. The Examiner's Answer further asserts that any combination of Castelli, Decker and Klassen does not utilize

the impermissible application of hindsight reasoning because such reasoning is based on Decker's teaching that as a printer is printing out a repetitive test pattern. The Examiner's Answer asserts that there would be some variation in registration as the paper moves through the printing station, and therefore, density readings may not be truly indicative of the average misregistration. However, there is no indication in Klassen that any registration patch or test pattern would be required to detect any misregistration, and therefore, the Office Action's reasoning has no rational underpinning to justify the Office Action's conclusions.

Even after the Supreme Court's Decision in *KSR International Co. v. Teleflex Incorporated*, 550 U.S. 398, 127 S.Ct. 1727 (2007), the analysis supporting an obviousness rejection must be explicit. The Supreme Court in *KSR* approved the conclusion set forth in the Decision of the Federal Circuit in *In re Kahn*, 441 F.3d 977 (Fed. Cir. 2006), that "rejections on obviousness grounds cannot be sustained by merely conclusory statements; instead there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." 550 U.S. 398, 127 S.Ct. 1727. The standard is not met here with the mere conclusory statement that one of ordinary skill in the art may have combined the currently-applied references "to avoid any inaccuracies due to the placement of the aperture of the color scanner within a repetitive pattern and to avoid inaccuracies due to density variations, caused by variation in the paper velocity through a print station." The mere fact that Decker teaches features such as a test pattern is not enough to support the conclusion that one of ordinary skill would have predictably modified Klassen to incorporate the features taught in Decker and Castelli. The mere existence of these features in separate references is not enough of a rational underpinning to support the articulated reasoning.

Accordingly, no predictability has been shown in the Office Action to make the asserted combinations of references. For at least this reason, the references are not

combinable in the manner the Office Action suggests, and the rejection based on the combination of these references necessarily fails.

For at least the foregoing reasons, no combination of Castelli with Decker and Klassen, which Appellants do not concede are combinable for all of the reasons discussed above and in Appellants' Brief on Appeal, would have rendered obvious the combinations of all of the features recited in independent claims 1, 8 and 20. Further, dependent claims 2-7 and 9-19 would also not have been rendered obvious for at least the dependence of these claims on independent claims 1 and 8, as well as for the separately patentable subject matter that each of these claims recites.

IV. Conclusion

For all the reasons stated in Appellants' Brief on Appeal, as well as the additional reasons set forth above, Appellants respectfully request that this Honorable Board reverse the rejections of claims 1-20.

Respectfully submitted,



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